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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YU-LING HSU	02/12/2019
PING-CHENG LI	02/12/2019
HUNG-LING SHIH	02/12/2019
PO-WEI LIU	02/12/2019
WEN-TUO HUANG	02/12/2019
YONG-SHIUAN TSAIR	02/12/2019
CHIA-SHENG LIN	02/12/2019
SHIH KUANG YANG	02/12/2019

RECEIVING PARTY DATA

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Postal Code:	300-77	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16248881

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NAME OF SUBMITTER:	MATTHEW W. GLAUSE

SIGNATURE:	/Matthew W. Glause/
DATE SIGNED:	02/25/2019
Total Attachments: 10	
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PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s): Yu-Ling Hsu

Assignor(s): Ping-Cheng Li

Assignor(s): Hung-Ling Shih

Assignor(s): Po-Wei Liu

Assignor(s): Wen-Tuo Huang

Assignor(s): Yong-Shiuan Tsair

Assignor(s): Chia-Sheng Lin

Assignor(s): Shih Kuang Yang

Assignee:

Taiwan Semiconductor Manufacturing Co., Ltd. No. 8, Li-Hsin Rd. 6, Hsin-Chu Science Park Hsin-Chu, Taiwan 300-77 Republic of China

AGREEMENT

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled
"CONTROL GATE STRAP LAYOUT TO IMPROVE A WORD LINE ETCH PROCESS
WINDOW" for which:

a non-provisional application for United States Letters Patent:

was executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration); or

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was filed on and accorded U.S. Serial No; or
I hereby authorize and request my attorney associated with Customer No.
107476, to insert on the designated lines below the filing date and application
number of said application when known:
U.S. Serial No.
filed on

WHEREAS, ASSIGNEE (listed above), a corporation of the Republic of China is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefore in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE its successors and assigns, the entire right, title and interest in and to said invention and improvements, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, re-examinations and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNOR(S) agree to execute all

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instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on sald invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefore.

2019/2/12 Date

Yu-Ling Hsu

Name 1st Inventor Yu-Ling Hsu

2019/2/12 Date

2nd Inventor Ping-Cheng Li

Date

Date

Name 3rd Inventor Hung-Ling Shih

2019/2/12

Date

Name 4th Inventor Po-Wei Liu

Page 6 of 10

7019/2/12 Date

Page 7 of 10

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) 9 / 2 / (2) Date

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PATENT REEL: 048423 FRAME: 0927

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